



VEXCON
CHEMICALS, INC.

Protecting and improving concrete since 1974

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POWERCOAT® EPOXY HD WATER BASE “Don’t say Epoxy- say PowerCoat”®

HEAVY DUTY • CHEMICAL RESISTANT • DURABLE • LOW ODOR

VOC Content (Clear) 192 grams/liter or 1.60#/gal
VOC Content (Pigmented) 150 grams/liter or 1.25#/gal

DESCRIPTION

POWERCOAT EPOXY HD WATER BASE is our top of the line two component clear and colored heavy duty epoxy coating. The product provides a tough and extremely durable coating with excellent adhesion and flexibility, as well as maximum impact, abrasion, and chemical resistance. Independent lab testing has shown that the product affords hardness and abrasion resistance comparable to typical 16-50 mil systems.

Features Powercoat Breathable Technology for long-term prevention of blistering and peeling. The Powercoat system is designed to eliminate the failures of adhesion associated with epoxy and polyurethane coatings due to moisture in concrete. Powercoat breathable technology allows moisture vapor to pass through rather than becoming trapped, preventing blistering and peeling. Independent tests verify that Powercoat has 3.30 perms rating, truly an epoxy that breathes.

Powercoat Epoxy provides a coating barrier against physical abrasion, corrosion and commonly encountered acid and alkali chemicals. It also resists solvents such as gasoline, brake fluid, solvents, salts and some alcohols. The system is ideal for use in commercial, food handling, industrial, or transportation services and many other applications.

BENEFITS

- Extremely durable
- Best chemical resistance including common acids, alkalis, solvents and salts
- Maximim hardness and adhesion
- Attractive, uniform appearance for industrial and commercial environments.
- Available in clear gloss and semi-gloss/matte, 19 standard and custom colors. See Vexcon Color Systems Chart
- Vexcon’s breathable technology
- Cures with minimum shrinkage or loss in film thickness
- Waterproof
- Apply to fresh concrete for fast track project completion

APPLICATION

- Surfaces must be primed with **Powercoat Primer Water Base** and should be allowed to dry for at least 4 hours for existing and 72 hours for new concrete prior to application of Powercoat Epoxy HD.
- Large cracks, repair using **Powercoat Epoxy Joint Sealant**.
- The coating is supplied in two parts, A and B, which are mixed together just prior to use.
- Separately mix with a Jiffy mixer the individual contents of each until uniform in consistency. When this is done, mix part B into part A.
- The product is supplied at the proper consistency for application and dilution will reduce efficiency.
- Same lot numbers should be used throughout the project. If lot numbers differ box-mix prior to use. If two different lots are

used, apply a final thin coat to the entire area.

- Apply by industrial paint sprayer, lambs wool applicator or roller. If applying by roller for best results use Vexcon’s **EvenFlow Applicator** or ¼ " nap mohair solvent roller.
- Use a roller pan to take off excess product. Do not dip and roll or pour and spread
- If using a roller do not overwork the material. Coat in one lapping direction only, overworked material can affect the film properties.
- The mixed material has a pot life of approximately 4 to 6 hours.
- **Two coats are required, second coat can be applied after the first coat has thoroughly dried. The dry time is dependent on temperature, air flow, film thickness and concrete conditions not a specific number of hours. Do not put on a second coat if the first coat is not dry.**
- To protect your Powercoat floor from ongoing construction dust, dirt and debris, use **Certi-Vex Talc Release** until construction is completed.
- Clean application equipment daily with **Certi-Vex Equipment Cleaner**, then flush with water.
- To improve non-slip profile use **Certi-Vex Grip** or **Certi-Vex Epoxy Non-Slip Additive**.
- For a unique and custom floor use **Certi-Vex Deco Chips**.

SPECIAL NOTES

- Powercoat Epoxy has splash and immersion resistance to many chemicals and can be used in areas where splashed materials will be removed in reasonable times, usually 4-24 hours. For immersion test information, see other side. Do not use in constant immersion applications without consulting with Vexcon Chemicals first if chemical is not on list.
- Do not apply below 60° F (15° C) or above 85° F.(29° C).
- Do not induct.
- Do not apply more than one coat without proper surface preparation including surface abrasion after full cure.
- Do not use spiked shoes during application.
- A second coat can be applied after 6 hours and within 48 hours without abrading the surface.
- Maintenance – clean regularly with **StarSeal EF Super Degreaser & Cleaner**
- For use by experienced applicators.
- Store at room temperature
- A semi-gloss/matte finish will develop in 7 days if using clear semi-gloss matte Powercoat HD.
- If properly stored in its original sealed container, one year. Rotate stock.

PHYSICAL PROPERTIES

- Dry-tack free Less than 6 hours
- Curing time - Foot traffic 24 hours
- Curing time - Vehicle traffic One week
- Solids 61% by volume, 72% by weight

COVERAGE RATES/ESTIMATING

Apply Powercoat Epoxy HD Water Base at 150-250 sq.ft./gal (3.8-6.3 m²/L) depending on desired film thickness and porosity of concrete. Calculated dry film thickness is based on one coat.

<u>Surface</u>	<u>Coverage Rate</u>	<u>Final Film Thickness</u>	
• Powercoat Primer WB Note: After application surface must have an <u>even</u> sheen.			
	<u>First Coat</u>	<u>Second Coat</u>	
Porous	200sq.ft./gal.	300sq.ft./gal.	120 sq.ft./gal. 3 mils (76µm) DFT
Hard, Non-porous	300sq.ft./gal.	400sq.ft./gal.	170 sq.ft./gal. 2 mils (51µm) DFT

• **Powercoat Epoxy HD WB**

	<u>First Coat</u>	<u>Second Coat</u>	
Porous	300sq.ft./gal.	300sq.ft./gal.	150sq.ft./gal. 6.5 mils (165µm) DFT
Hard, Non- Porous	400sq.ft./gal.	400sq.ft./gal.	200sq.ft./gal. 5 mils (127µm) DFT
Hard, Non-Porous	500sq.ft./gal.	500sq.ft./gal.	250sq.ft./gal. 4 mils (101µm) DFT

BREATHABILITY TESTING

PERMEABILITY: ASTM D1653 3.30 perms DL LABS #11884-B, ASTM F 1869 3.0#/1000sq.ft./24 hrs. vs uncoated of 27#/1000sq.ft./24hrs.

DURABILITY & WEARABILITY TESTING

Independent lab testing has confirmed that Vexcon Powercoat System provides outstanding physical strength characteristics. The systems hardness and durability far exceeds the standard levels for the product mil levels.

Hardness, Shore A 95-96 Pencil Hardness: 3H

Hardness, Shore D 84-87

Taber Abrasion

CS17 wheels

1000grams/1000 cycles .22 grams 0.8 % loss per 1000 rev.

Wear Cycle per mil 885 or 1.13 mil/1000 rev.

All testing based upon two coats at 200sq.ft./gallon. Coating has cured 7 days.

TEST REPORT SUMMARY D/L LAB #10760

Product: Vexcon PowerCoat **Lab:** 87A14
Coverage Rate: 150 sq./ft/gal
Set to Touch: 1 Hour (unprimed)
Tack Free: 2 Hours (unprimed)
Dry Hard: 4 Hours (unprimed) **Dry Thru:** 4 Hours (unprimed)
ASTM D 523 Gloss: 90
Adhesion: **ASTM D4541**
Primed with Vexcon PowerCoat Primer @ 200 sq.ft/gal
Primed: 395 Unprimed: 350
All cohesive/substrate failures:
Salt Spray: Rating 0=Poor 10=Excellent No effect
ASTM B117--Scribed 10
ASTM D714--Unscribed 10
STEAM RESISTANCE FEDERAL SPEC. TT C 535 B
Section 3.4.10 **Steam @ 207°F**
6 hours: Rating 0=Poor 10=Excellent, no effect
Primed: 10 Unprimed: 10
Scribed no blistering, discoloration, loss of hardness or film properties
Adhesion scribed/primed
Before: 395 After: 350
Gloss Before: After Steam Test:
Primed: 85 Primed: 84
Unprimed: 90 Unprimed: 90
UV Weathering 200 Hrs. ASTM G53 Unprimed
Rating: 0=Poor 10=Excellent, no effect
No chalking 10
Film Characteristics: No delamination or deleterious effects
Discoloration: 200% better than control

SPECIFICATIONS/COMPLIANCE

VOC – 192 grams/liter or 1.60#/gal (Clear)

VOC – 150 grams/liter or 1.60#/gal (Pigmented)

• Meets:

- USEPA AIM-Industrial Maintenance Coatings
- OTC- Industrial Maintenance Coatings
- CARB- Industrial Maintenance Coatings

• LEED NC category/points: For detailed information visit vexcon.com/green

- EQ 4.2 – 1 point
- MR 5.1/5.2 – 1 point

• USDA requirements for paints and coatings for use in federally inspected meat and poultry plants.

- ASTM-E84 Class A fire rating
- ADA and ASTM D2047 non-slip requirements

DRY TIME

- The relative humidity, surface and air temperature will affect dry times.
- High humidity will extend dry times and require positive air flow for adequate drying. This is accomplished with the use of fans, open windows or doors to properly circulate the air.
- Low temperatures will also extend dry times.
- NOTE: Surface temperatures can vary from ambient. Do not apply if surface temperatures are below 60°F or above 85°F.
- Material must be within specified temperature ranges before application.
- **Do not apply second coat until the first coat is dry.** You can test for dryness by pressing tape hard onto the surface. Leave for 5 minutes then remove. If tape is clean the surface is dry.

IMMERSION TESTING

Powercoat can be immersed in the following chemicals. Recommended coverage rates must be followed and no pinholes or voids in the coating. Two coats Powercoat @ 150sq.ft./gallon are recommended.

CHEMICAL 30 DAY RATING CHEMICAL 30 DAY RATING

25% Caustic (NaOH)	No effect	Gasohol	No effect
25% Sodium Chloride	No effect	Water	No effect
Skydrol 500B-4	No effect	Brake Fluid	Loss of gloss
15% Muriatic Acid	No effect	Acetone	Loss of gloss
Anti Freeze Ethylene Glycol	No effect		

For other chemical resistance, contact Vexcon Chemicals.

PACKAGING

COLOR:

PART A: Color: 2.2 gal. by volume in a 5 gallon pail; by wt. 55%.

PART B: Base: 1.8 gal. by volume in a 3 gallon pail; by wt. 45%.

YIELD: 4 gallons of finished coating.

CLEAR

PART A: Clear: 1.8 gal. by volume in a 5 gallon pail; by wt. 43%.

PART B: Base: 2.2 gal. by volume in a 3 gallon pail; by wt. 57%.

YIELD: 4 gallons of finished coating.

When using other containers to measure smaller volumes, the above ratios must be used.

HEALTH AND SAFETY

Vexcon MSDS #CP110 is an integral part of the safety and application of our product. A short synopsis is provided in this product data sheet. Before using this Vexcon product obtain a copy of the MSDS from your distributor or by contacting Vexcon Chemicals.

CONTACT US @

Additional product information, technical assistance and customer service is available by contacting Vexcon Chemicals directly or our distributors.

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